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CARNATION RUST

The rust of carnation is sometimes a destructive disease, especially when susceptible varieties are grown. The following points about the disease are important from the point of view of control. The rust is due to a fungus which lives as delicate threads unseen in the tissues of the plant, and produces thousands of spores in the small brown pustules. The spores are readily carried by air currents, by insects, or by tools, or by handling, and when water is present on the leaf where they fall they germinate and cause infection. While this rust is not particularly infectious it is troublesome on account of the fact that the fungus permeates the tissues and is not confined to the neighborhood of the pustules alone, as well as to the fact that the carnation is propagated by cuttings which thus transmit the disease.

Some growers rely on resistant varieties of which there are quite a number. The resistant list includes Enchantress, Lawson, William Scott, Mrs. C. W. Ward, White Perfection, Matchless, Beacon, White Wonder, Pink Delight, and Benorah; varieties classed as susceptible are Scott, Jubilee, Uncle John, Daybrake, Silver Spray, and Jacqueminot.

The average grower however does not wish to limit his stock in this way and must resort to other methods of control. Of these temperature is very important. A low temperature seems to be unfavorable to the growth of the fungus and if the temperature is consistently maintained at a low level the plants tend to outgrow the rust and there is likely to be an increasing proportion of each succeeding lot of cuttings free from the disease. Watering is also important; since water must be present on the leaves for some hours in order to germinate the spores, the spread from this cause can be lessened materially by watering from below without wetting the tops. Some growers even go so far as to remove all lower leaves and to provide wire supports to keep the foliage from the earth. When overhead watering is necessary as in the case of red spider control it should be given only in the early morning of a bright day so that the plants will dry very quickly.

Spraying has been used for this rust and weekly applications of Bordeaux mixture or copper sulfate (1 lb. to 25 gal.) have been recommended. These are beneficial to some extent but the main reliance shnuld be placed on the control of moisture and temperature conditions. These go to the heart of the trouble whereas spraying methods can only lessen the one form of spread - by the spores.